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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/885,566	06/20/2001	Joachim Markert	70201	6188

7590 06/17/2003

McGLEW AND TUTTLE  
SCARBOROUGH STATION  
SCARBOROUGH, NY 10510-0827

EXAMINER
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MCANULTY, TIMOTHY P

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 06/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/885,566

Applicant(s)

MARKERT, JOACHIM

Examiner

Timothy P McAnulty

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2003 and 27 March 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 3-10, 12, 19, 22, 24/3-10, 24/12, 24/19, and 24/22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 11, 13-18, 20, 21, 23, 24/1-2, 24/11, 24/13-18, 24/20-21, 24/23, and 25-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 27 March 2003 is: a) ☐ approved b) ☒ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 27 March 2003 have been disapproved because they introduce new matter into the drawings. 37

CFR 1.121(f) states that no amendment may introduce new matter into the disclosure of an application. The original disclosure does not support newly added Figure 12 showing an eccentric shaft 20 or newly added Figure 13 showing a wave generator 17a.

2. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 14 April 2003 have been approved. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the harmonic drive as claimed in claim 18 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

4. The amendment filed 27 March 2003 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the description of the embodiment shown in Figure 12 and the description of the embodiment shown in figure 13.

Applicant is required to cancel the new matter in the reply to this Office Action.

***Claim Rejections - 35 USC § 102***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
6. Claims 1,2,11,13-17,20,21,23, are rejected under 35 U.S.C. 102(b) as being anticipated by Mabuchi et al.

Mabuchi et al. in figures 1-4, discloses a gear comprising a motor 1 having a drive shaft 2 and a first part 4 having a shaft 5 extending into a second part 8; wherein each of the first part and the second part are rotatable relative to one another and to the drive shaft.

Regarding claim 11, the shaft is inherently subject to a torque.

Regarding claim 21, the drive motor is inherently positioned under a finite angle with respect to the rotation axis of at least one of the parts.

***Claim Rejections - 35 USC § 103***

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
8. Claim 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mabuchi et al. in view of Iwata.

Mabuchi discloses the basic apparatus as previously cited but does not disclose said gear being a harmonic drive gear. However, Iwata discloses in figures 4-5, a harmonic speed changer arranged in an articulation between a first arm and a second arm of a robot. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Mabuchi in view of the teachings of Iwata to arrange the gear as a harmonic gear drive to eliminate backlash within the robot joint and thus improve accuracy of robotic movement.

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9. Claims 24/1,2,11,13-17,20,21,23, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mabuchi et al in view of James et al.

Mabuchi et al discloses the basic apparatus as previously cited but does not disclose said gear used in a robot. However, James et al. teaches a robot arm having a motor driven joint. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Mabuchi et al. in view of the teachings of James et al. that it is old and well known in the art to provide a motor driven joint for articulation of a robot.

10. Claim 24/18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mabuchi et al. in view of Iwata as applied to claim 18 above and in further view of James et al.

Mabuchi et al. in view of Iwata discloses the basic apparatus as previously cited but does not disclose said gear used in a robot. However, James et al. teaches a robot arm having a motor driven joint. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Mabuchi et al. in view of the teachings of James et al. that it is old and well known in the art to provide a motor driven joint for articulation of a robot.

#### ***Response to Arguments***

11. Applicant's arguments with respect to claims 1,2,11,13-18,20,21, and 23-27 have been considered but are moot in view of the new ground(s) of rejection. Although Eberle et al. may not disclose a gear having a drive shaft, a first part, a second part, and a fixed shaft wherein said first part and said second part are rotatable relative to one another and the drive shaft, Mabuchi et al. discloses such structure.

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*Conclusion*


12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy P McAnulty whose telephone number is 703.308.8684. The examiner can normally be reached on Monday-Friday (7:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on 703.308.3668. The fax phone numbers for the organization where this application or proceeding is assigned are 703.305.7687 for regular communications and 703.305.7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.1113.

tpm   
June 13, 2003

  
William C. Joyce  
Patent Executive